## Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application:

## Listing of the Claims:

1-22. (Canceled)

23. (Currently Amended)   A method ~~for acquiring access to an object~~ as recited in claim ~~22~~ 28 wherein setting ~~the pointer and setting~~ the reference ~~occur~~ occurs substantially when the thread acquires a lock to the object.

24. (Currently Amended)   A method ~~for acquiring access to an object~~ as recited in claim ~~22~~ 28 wherein setting the reference includes setting a boolean reference count.

25. (Currently Amended)   A method ~~for acquiring access to an object~~ as recited in claim ~~22~~ 28 wherein said method further comprises:
        associating the first monitor with the object ~~includes setting a first pointer from the monitor to the object.~~

26. (Currently Amended)   A method ~~for acquiring access to an object~~ as recited in claim ~~22~~ 28 wherein said associating a monitor with the object includes obtaining the monitor from a freelist of monitors.

27. (Canceled)

28. (Currently Amended)   A method for reducing overhead associated with providing a monitor for an object included in a multi-threaded, object-based computing system, the computing system including a plurality of monitors which includes a ~~the~~ first monitor, the method comprising:
        setting a first pointer from the first monitor to the object;
        setting a second pointer from the object to the first monitor;

setting a third pointer from a thread to the object, wherein the thread is arranged to execute on the object; and

setting a reference substantially directly from the thread to the first monitor, wherein setting the reference includes updating contents of a reference field associated with the thread;

invoking the object using the thread, wherein said invoking of the object using the thread includes initiating a wait action, the wait action being arranged to place the object into a wait state; and

performing a memory reclamation during the wait state, wherein said performing of a memory reclamation during the wait state includes:

identifying the contents of the reference field,

using the contents of the reference field to identify the first monitor, and

updating the contents of a monitor field associated with the first monitor to indicate that the first monitor is in use.

29-31. (Cancelled)

32. (Currently Amended) A method for reducing overhead as recited in claim ~~34~~ 28 wherein performing a memory reclamation during the wait state further includes:

scanning through substantially all monitors included in the plurality of monitors; and

reclaiming substantially any monitor included in the plurality of monitors that is not indicated as being in use, wherein the first monitor is not reclaimed because the contents of the monitor field associated with the first monitor indicate that the first monitor is in use.

33. (Canceled)

34. (Currently Amended) A computer program product according to claim ~~33~~ 36 wherein the computer code for setting the reference includes computer code for setting a boolean reference count.

35. (Currently Amended) A computer program product according to claim ~~33~~ 36 wherein the computer-readable medium is one selected from the group consisting of a

hard disk, a floppy disk, a data signal embodied in a carrier wave, a tape drive, an optical drive, and a CD-ROM.

36. (Currently Amended)   A computer program product for reducing overhead associated with providing a monitor for an object included in a multi-threaded, object-based computing system, the computing system including a plurality of monitors which includes a ~~the~~ first monitor, the computer program product comprising:

    computer code for setting a first pointer from the first monitor to the object;

    computer code for setting a second pointer from the object to the first monitor;

    computer code for setting a pointer from a thread to the object, wherein the thread is arranged to execute on the object;

    computer code for setting a reference substantially directly from the thread to the first monitor, wherein setting the reference include updating contents of a reference field associated with the thread;

    <u>computer program code for invoking the object using the thread, wherein said invoking of the object using the thread includes initiating a wait action, the wait action being arranged to place the object into a wait state;</u>

    <u>computer code for performing a memory reclamation during the wait state, wherein said performing of a memory reclamation during the wait state includes:</u>

        <u>identifying the contents of the reference field,</u>

        <u>using the contents of the reference field to identify the first monitor, and</u>

        <u>updating the contents of a monitor field associated with the first monitor to indicate that the first monitor is in use;</u> and

    a computer-readable medium that stores the computer codes.

37.    (Canceled)

38. (Currently Amended)   A computer program product according to claim ~~37~~ <u>36</u> wherein the computer code for performing a memory reclamation during the wait state includes:

    ~~computer code for identifying the contents of the reference field;~~

    ~~computer code for using the contents of the reference field to identify the first monitor;~~

~~computer code for updating the contents of a monitor field associated with the first monitor to indicate that the first monitor is in use;~~

computer code for scanning through substantially all monitors included in the plurality of monitors; and

computer code for reclaiming substantially any monitor included in the plurality of monitors that is not indicated as being in use, wherein the first monitor is not reclaimed because the contents of the monitor field associated with the first monitor indicate that the first monitor is in use.

39. (Original)   A computer program product according to claim 36 wherein the computer-readable medium is one selected from the group consisting of a hard disk, a floppy disk, a data signal embodied in a carrier wave, a tape drive, an optical drive, and a CD-ROM.

40. (Cancelled)

41. (New)    A computer system comprising:

memory;

at least one processor which is capable of operating to:

set a first pointer from a first monitor to an object;

set a second pointer from the object to the first monitor;

set a third pointer from a thread to the object, wherein the thread is arranged to execute on the object; and

set a reference substantially directly from the thread to the first monitor, wherein setting the reference includes updating contents of a reference field associated with the thread;

invoke the object using the thread, wherein invoking the object using the thread includes initiating a wait action, the wait action being arranged to place the object into a wait state; and

perform a memory reclamation during the wait state, wherein said performing of a memory reclamation during the wait state includes:

identify the contents of the reference field;

using the contents of the reference field to identify the first monitor;

and

updating the contents of a monitor field associated with the first monitor to indicate that the first monitor is in use.

42. (New)    A computer system as recited in claim 41, wherein said at least one processor is further capable of operating to:

scan through substantially all monitors included in the plurality of monitors; and

reclaim substantially any monitor included in the plurality of monitors that is not indicated as being in use, wherein the first monitor is not reclaimed because the contents of the monitor field associated with the first monitor indicate that the first monitor is in use.

43. (New)    A computer system as recited in claim 41, wherein setting the reference includes setting a boolean reference count.

44. (New)    A computer system as recited in claim 41, wherein said computer system is further capable of operating to associate the monitor with the object.

45. (New)    A computer system as recited in claim 41, wherein said associating a monitor with the object includes obtaining the monitor from a freelist of monitors.

46. (New)    A computer program product as recited in claim 36, wherein setting the reference includes setting a Boolean reference count.

47. (New)    A computer program product as recited in claim 36, further comprising: computer code for associating a monitor with the object.

48. (New)    A computer program product as recited in claim 46 wherein said associating of a monitor includes obtaining the monitor from a freelist of monitors.